

Perception of Professional Role Activities in the Local Health Department

MARY F. ARNOLD, Dr.P.H.

THERE are variations and patterns in the way public health workers perceive themselves and each other. Discovery of patterns that are related to the type of work done and to professional identification can provide helpful information in planning for more effective public health work.

When different professional groups work together, they are often referred to as a "team" and as doing "teamwork." But, in order to work together effectively, it is important that each member of the team be aware of what the other members are doing and that there be at least tacit agreement about what aspects of the work each one is to carry out. Individual roles of members of different professions on the public health team have been viewed with interest and concern, but there has been little study of how each member of the team perceives the role of other members.

During the spring of 1960 a study of the perceptions of physicians, public health nurses, and health educators of the activity of each of these professions was carried out in 23 local health departments in California. The purpose of the study was to ascertain if there were differences among professional public health groups in their perception of the work of other professional groups and to which administrative areas these differences in perception might be related. The study represents three professional groups in public health with matched experience in the same health departments.

Dr. Arnold is a lecturer in the division of public health and medical care administration, School of Public Health, University of California, Berkeley.

A sample of 40 teams was selected on a modified random sampling basis. Each team included a physician, a public health nurse, and a health educator. Team members worked at similar administrative levels in the same health department and each member had worked in the agency for 6 months or more. The criteria of selection were based on the assumption that the persons selected would have had sufficient opportunities to know what each did in the agency.

Bases for the Study

Although the term "role" can be used in a variety of ways, it may be described as the things a person does when he occupies a particular social position. For example, a person is expected to do different things as a physician or as a teacher than as a father, and he acts differently as a father and as a son, although the same person may carry out all of these roles. In an organization, a professional role consists of activities that a person in a particular profession is expected, both by himself and by others, to carry out. There are other aspects of the professional role, but this study emphasizes professional role activities carried out within an organizational structure.

A professional role may be ambiguous if the members of a profession are not in agreement about what they do or if there is disagreement between the professional group and the persons with whom they work. When there is lack of agreement about what a person should do in a particular role, both that person and those who work with him are affected, and

changes in the role develop. This ambiguity can result in conflict and in decreased efficiency in teamwork.

Several approaches can be taken in considering the administrative aspects of activities of occupants of various roles in an organization. Hughes (1) has suggested that it might be of value to study occupational groups in terms of the proportion of technical and interpersonal skills in each group. An activity, too, can be classified as to whether it takes predominantly technical or interpersonal skills to carry it out.

Since technical skills seem to be more highly valued than interpersonal skills in our culture, it was hypothesized for this study that there would be more agreement among all professional groups about who would perform activities requiring predominantly technical skills than about who would perform activities requiring interpersonal skills. Additionally, it was hypothesized that the professional group assuming the greater proportion of interpersonal skill activities would have the most ambiguity in its role. Technical activities were defined as "those items in which the objective situation is manipulated, which deal with ideas, objects, resources, and information. If persons are involved, they are considered as objects and are not involved in the interaction situation." Interpersonal activities were defined as "those activities in which there is interchange and interaction between persons."

Another aspect of the professional role relates to the focus or purpose of the activities perceived to be carried out by each profession. Most theorists in small group and organizational research postulate that when an organization is considered as a system or entity in itself it has two major needs (2-11). These are (a) to perform those functions that are the *raison d'être* of the organization, that is, to accomplish its purposes and goals, and (b) concomitantly to carry out activities that will integrate its personnel into an effective working group. Thus, some activities are external in character in that they are directed outward in terms of goals, and others are internal and integrative in that they are directed inward in terms of meeting the needs of personnel. Therefore, in this study consideration was also given to whether ambiguity of professional role was

related to the organizational purpose of the activities perceived to be performed by the three professional groups.

In carrying out any activity, decisions must be made. Some activities are individual and decisions concerning them will have little effect on an organization's policies or its personnel. Decisions on other activities, however, may affect the direction of the organization, its policies and its purposes. Still other decisions may directly affect the actions of personnel. For example, selection of community leaders to serve on an advisory committee requires policy decisions; preparation of a manual of procedures in a chest clinic requires decisions about the work of other persons.

Most, but not all, activities in which decisions affect the immediate work of others are internal, or integrative. Therefore, there might be more disagreement about which persons carry out these activities than about who carries out activities that do not affect either individuals or the organization.

Agreements and disagreements among physicians, public health nurses, and health educators in their perception of the role activities of each profession in the work of the health department were analyzed in the light of the following questions:

- Is ambiguity of professional role related to the different types of skills needed to carry out the activities of the organization?
- Is ambiguity of professional role related to the purpose of the activity in the organization? Are there differences in ambiguity when the purpose of the activity is to accomplish the specific goals of the organization and when the purpose is integration or coordination of personnel?
- Is ambiguity of professional role related to the kinds of decisions that must be made when carrying out the activities of the organization? Is there a difference in ambiguity when decisions affect policy and when they affect the immediate work of others?

Method of Study

Questionnaires were given to the 40 members of each profession represented in the study. The questionnaire listed 58 activities typically

58 Activities Used in Study of Role Perceptions

1. Meet with neighborhood leaders to form health committee.
 2. Show films to interested mothers' groups.
 3. Speak about the health department to the Kiwanis Club.
 4. Make arrangements for foreign student to observe agency program.
 5. Serve as health department representative to family and children's division of local Council of Social Agencies.
 6. Counsel families on health matters.
 7. Meet with high school classes making field visit to the health department.
 8. Train staff as discussion leaders for groups of mothers of preschool children.
 9. Conduct staff inservice training on human relations.
 10. Serve as chairman of staff committee on personnel policies.
 11. Use consultant help from State health department.
 12. Select community leaders to serve on an advisory committee.
 13. Plan joint program activities with outside agencies.
 14. Recruit volunteers for health department clinics.
 15. Plan workshop on geriatrics with recreation department.
 16. Train volunteers to work in health department clinics.
 17. Serve as coordinator for agency's training program.
 18. Serve as recorder for staff committee on setting up library for agency.
 19. Write monthly column for *Medical Society Bulletin*.
 20. Speak at teachers' meeting on "The Healthy School."
 21. Assist League of Women Voters in their study of local public health legislation.
 22. Serve as health department representative to health division of local Council of Social Agencies.
 23. Serve on board of a voluntary health agency.
 24. Contact physician of school children who have been referred with physical defects.
 25. Explain what is needed in a health program to community leaders.
 26. Contact other official agencies.
 27. Prepare material for mayor to use in speech about the health of the community.
 28. Prepare summary of current public health bills in legislature for professional colleagues.
 29. Prepare suggested referral policies for patients needing home care after hospitalization.
 30. Write the copy for the agency's annual report.
 31. Determine the equipment and supplies needed for immunization program.
 32. Prepare a staff manual on procedures for a chest clinic.
 33. Write a request for a research grant from a foundation.
 34. Prepare an ordinance to be presented to the local legislative body for the establishment of a home accident program.
 35. Edit and produce the agency's annual report.
 36. Set up record system for evaluating child health conferences.
 37. Determine the subject matter for training to be given to students from nearby university.
 38. Prepare summary report of venereal disease clinic caseload.
 39. Prepare material for newspapers when special events occur.
 40. Discuss with a group of community leaders what other members of the health department do.
 41. Set objectives of health program for a particular geographic area of the community.
 42. Determine proportion of staff time that should be budgeted to a particular program.
 43. Analyze data about the health status of industrial workers in the community.
 44. Meet with newspaper reporters.
 45. Provide consultation to other staff members.
 46. Plan agenda of staff meeting.
 47. Recruit personnel.
 48. Estimate the medical care needs of agricultural workers in the community.
 49. Decide on when to refer and to whom to refer cases.
 50. Appraise the health significance of the home environment of the public served by the health department.
 51. Prepare cost analysis of child health activities.
 52. Review monthly statistical reports of morbidity.
 53. Develop a plan for performance budgeting.
 54. Supervise the tuberculosis case register.
 55. Prepare report for legislative body on costs of travel for field staff.
 56. Prepare staff manual on personnel policies.
 57. Determine time to be allotted for appointments in child health conferences.
 58. Plan public relations program for the agency.
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performed by a local health department. This list was developed from a variety of sources, such as descriptions of activities by graduate students in public health with previous experience in local health departments, job descriptions, lists prepared in other studies, experience of individuals from each profession, and so on. The list was reviewed by experts in each field to make sure that it included sufficient items for assignment to each professional discipline and to insure that all activities listed could be carried out by a physician, a public health nurse, and a health educator. To insure that all types of activities of a local health department would be represented, eight administrative categories—four representing external activities and four representing internal, integrative activities—were used in the selection of items.

Judges from each discipline determined whether each activity required predominantly technical or interpersonal skills and items not clearly technical or interpersonal were deleted. The final list of activities was made on the basis of these assignments. Activities were also coded in terms of the effects of decisions made while carrying out the activity on the work of others or on organizational policy.

The questionnaire was coded according to the type of skills needed, the purpose of the activity, and the effect of the decisions involved. For each activity respondents were asked to indicate, on the basis of current practice, whether a physician, a public health nurse, or a health educator was most likely or least likely to carry out the activity. The "most likely" profession was rated "1" on a three-point scale, the "least likely" was rated "3," and the profession not named was rated "2." Thus, in effect, each respondent rated each profession according to how often its members carried out a particular activity. Respondents were verbally informed that their answers would be so rated. If the professions instead of the activities had been presented for rating, the order of presentation might have affected the way the role of a profession was perceived; therefore, this form of questionnaire provided a device whereby the respondent named the profession he rated.

Additionally, respondents were asked to in-

dicate on an independent five-point scale how often activities in each of the eight administrative categories were carried out by each profession.

The Friedman two-way rank analysis (12,13) was used to determine agreement on rankings within a professional respondent group. When a significant difference between mean ranks was demonstrated, agreement, or "consensus," within the group was assumed, and the profession showing the lowest mean rank was assumed to be regarded by the respondent group as most likely to carry out the activity being rated. For activities for which no difference in mean rankings was found, it was assumed that the activity was either perceived as being carried out equally by all three professions or that it was too ambiguous to be agreed upon by the respondents. Thus, for each activity listed in the questionnaire, consensus about which profession carried out the activity was obtained for each professional group in the study. Consensus by at least one respondent group was found for all activities listed in the questionnaire, and at least two respondent groups showed consensus on 93 percent of the items.

Findings

All three professional groups were in agreement on 35 activities, 60 percent of those listed (table 1). Fourteen activities were attributed to the physician, 7 to the public health nurse, and 14 to the health educator. In general, the physician was perceived in a management or administrative role, with major responsibilities in program planning and evaluation. The three respondent groups agreed, for example, that he is the person most likely to develop a plan for performance budgeting, to review monthly statistical reports of morbidity, to prepare cost analyses of child health activities, to prepare an ordinance for the establishment of a home accident program, and to explain to community leaders what is needed in a health program.

The public health nurse and the health educator were perceived as the persons who more often carry the health department program to the public. The main areas of activity attributed to the nurse lie in program relationships with the public, both direct and coordinating. In addition, the nurse was perceived as having

responsibilities in program planning. All three respondent groups agreed, for example, that public health nurses are the group most likely to counsel families on health matters, to contact physicians of school children who have been referred with physical defects, to determine the equipment and supplies needed for immunization programs, to recruit and train volunteers to work in health department clinics, and to suggest referral policies for patients needing home care after hospitalization.

Health educators were perceived by all three respondent groups as the profession most concerned with public relations and with coordinating relationships between the health department and outside organizations and agencies. Internally, they were perceived for the most part in a training capacity. Typical activities attributed to them were coordination of the agency's training program, planning a workshop on geriatrics with the recreation department, assisting the League of Women Voters in studying local public health legislation, preparing material on special events for newspapers, and training health department staff as discussion leaders for groups of mothers of preschool children.

Thus, for a majority of the activities listed in the questionnaire, physicians, public health nurses, and health educators were in agreement

about which profession was most likely to carry out a particular activity.

Analysis, however, of the proportionate number of times respondents from each professional group agree with the group's self-attributed role showed significant differences in agreement (table 2).

All differences in percentage agreement were significant with the exception of physician and health educator agreement about public health nursing activities, and self-agreement between the physicians and nurses. Thus analysis of respondent agreement shows the self-attributed role activities of the health educators to be the least ambiguous. The public health nursing role activities were the most ambiguous (table 2). When professional group agreements were analyzed, the same pattern was found (table 3).

Nine activities (15.5 percent) overlapped for physicians and nurses, in that each profession attributed these activities to itself. For physicians and health educators self-attributed activities overlapped in six items (10 percent), while the overlap for public health nurses and health educators included only two activities, or 3.4 percent. Thus, for the physicians 14, or 48 percent, of their self-attributed activities were attributed by another profession to itself, 11, or 58 percent, of the nursing self-attributed activities were claimed by another professional

Table 1. Activities attributed to each profession, by agreement among groups

Agreement	Number of activities attributed by—											
	Physicians to—				Public health nurses to—				Health educators to—			
	Physicians	Public health nurses	Health educators	Total	Physicians	Public health nurses	Health educators	Total	Physicians	Public health nurses	Health educators	Total
All three groups.....	14	7	14	35	14	7	14	35	14	7	14	35
Physicians and health educators.....	4	1	1	6					4	1	1	6
Public health nurses and health educators.....					0	4	3	7	0	4	3	7
None.....	11	0	1	12	2	8	0	10	0	1	6	7
No consensus within group.....				5				6				3
Total.....	29	8	16	58	16	19	17	58	18	13	24	58

Table 2. Number of times 40 respondents from each profession agree and disagree with the self-attributed role activities of the three professions

Profession of respondents agreeing and disagreeing with group self-attributed role activities	Agreements and disagreements by respondents of each profession with self-attributed role activities of—		
	Physicians (29 activities)	Public health nurses (19 activities)	Health educators (24 activities)
Physicians.....	1, 133. 0	749. 0	941. 0
Agreeing with.....	832. 5	327. 5	528. 0
Disagreeing with.....	300. 5	421. 5	413. 0
Percent agreement.....	73. 4	43. 7	56. 1
Public health nurses.....	1, 158. 0	760. 0	959. 0
Agreeing with.....	555. 0	552. 0	580. 0
Disagreeing with.....	603. 0	208. 0	379. 0
Percent agreement.....	47. 9	72. 6	60. 5
Health educators.....	1, 151. 0	757. 0	954. 0
Agreeing with.....	660. 0	350. 0	758. 0
Disagreeing with.....	491. 0	407. 0	196. 0
Percent agreement.....	57. 3	46. 2	79. 5

group, while only 29 percent of the self-attributed activities of the health educators were attributed by another professional group to itself.

Technical and interpersonal skills. When a respondent group did not show consensus on which profession is most likely to carry out an activity, it was assumed that the activity either was perceived as being carried out by any of the professions or that it did not provide adequate clues for assignment to a specific professional group. Analysis of ambiguous activities showed that only two activities in the technical group were not assigned to a profession by one or two respondent groups, while eight of the interpersonal activities were unassigned by one or more groups. Since 29 technical and 29 interpersonal activities were listed, the proportion of interpersonal items that did not show

consensus for at least one respondent group was significantly greater than the proportion of technical items (chi-square=4.41, $P \leq 0.05$). Thus, the interpersonal skill area appears to be more ambiguous for professional role definition than the technical skill area.

Comparison of disagreements on activities embodying technical and interpersonal skills showed no differences among the three professions. Physicians were assigned a larger proportion of technical activities by all three respondent groups, health educators were assigned a larger proportion of interpersonal skill activities, and the two skill areas were about equally assigned to the public health nurses by all three groups. Thus, although the interpersonal skill area is more ambiguous in the light of consensus within a professional group, there was no relationship between the skill areas and disagreements among professions.

Role activity. When agreement about activities was analyzed on the basis of whether an activity is external or internal and integrative, a relationship was demonstrated between the purpose of the activity and differences in agreement (table 4). Although the total differences in agreement on the two types of activities were not statistically significant, respondent groups disagreed on 44 percent of the internal type and on 35 percent of the external type. However, analysis of agreement

Table 3. Percentage of agreement with self-attributed activities, according to professional group

Agreement of—	Percent of activities
Public health nurses with health educators.....	70. 8
Physicians with health educators.....	62. 5
Health educators with physicians.....	62. 1
Health educators with public health nurses.....	57. 9
Public health nurses with physicians.....	48. 3
Physicians with public health nurses.....	36. 8

between respondent groups showed that for activities self-attributed by physicians and by nurses there was no difference in agreement with other professions on whether the activities were external or internal and integrative.

For the health educator activities, on the other hand, there was significantly more disagreement by the other two professional groups in the internal, integrative area than in the external area. Disagreement between public health nurses and health educators about health educator activities was significantly greater in the internal, integrative area than in the external area ($\chi^2=4.85$; $P\leq 0.05$), while disagreement between physicians and health educators about the health educator activities was not significantly different in the two areas.

Types of decisions. Although disagreements on the effects of decisions on agency policies or personnel were not significant for any profession, there was significantly less agreement ($\chi^2=6.02$; $P\leq 0.05$) among all three specialty groups about which profession carries out activities for which decisions would affect individuals in an agency than about which profession carries out decisions that would affect policy (table 5). Eighty-nine percent of the activities in which decisions would affect the work of individuals were of the internal, integrative type.

Discussion

Ambiguity of professional role for the physicians, public health nurses, and health educators represented in this study appears to be greatest for public health nurses and least

Table 5. Agreement among professional groups, by type of decision involved in activity

Type of decision	Number of activities		
	Agreement	Disagreement	Total
Affects general policy-----	13	6	19
Affects individuals-----	12	15	27
Has little effect-----	10	2	12

for health educators. In comparison with the other two professions the health educators had significantly higher agreement among themselves concerning their own professional role activities, and physicians and public health nurses showed greater agreement about the role of the public health educator than about each other's roles.

Although the study is representative only of local health departments in California employing these three professions, the implications of the findings may be pertinent for other health departments where similar administrative patterns prevail.

Intraprofessional disagreement was greatest about which profession is most likely to carry out activities requiring predominantly interpersonal skills. For any profession, the interpersonal skill area is likely to raise difficulties in role definition for the profession. All three professional groups agreed that the health educator is likely to carry out a larger proportion of activities requiring interpersonal skills than the other two professions and that the physician

Table 4. Agreement by other professional groups with self-attributed activities of each profession, according to type of activity

Professions in agreement	Number and type of self-attributed role activities of—								
	Physicians			Public health nurses			Health educators		
	External	Internal	Total	External	Internal	Total	External	Internal	Total
Both other professions-----	4	10	14	3	4	7	10	4	14
Physicians-----	0	0	0	0	0	0	1	0	1
Public health nurses-----	0	0	0	3	0	3	3	0	3
Health educators-----	1	3	4	1	3	4	1	5	6
No other profession-----	2	9	11	2	6	8	1	5	6
Total-----	7	22	29	6	13	19	15	9	24

is likely to carry out a larger proportion of activities requiring technical skills. Although all three professional groups show ambiguity in role definition of the interpersonal skill area, the role of the health educator, which requires a high proportion of interpersonal skills, is the least ambiguous.

Role ambiguity related to disagreements between professions was greater for internal, integrative activities than for activities directed toward the external goals of an organization. Additionally, there was a greater amount of disagreement about activities in which decisions are made that affect the work of other individuals than about activities requiring a different type of decision. In general, all three groups agreed on the professional roles that are presented to the outside world, but disagreement was found with activities internally important to the organization. Since the role of the health educator was perceived by all three groups as highly external in character, it is likely that the high proportion of agreement about external types of activities is the factor that makes the health educator role the least ambiguous of the three professions.

Physicians, nurses, and health educators agreed about the health educator role in dealings with the public when the activities of other staff members are not affected. But when health educators attributed to themselves activities in which their decisions would affect the action of other staff members, both physicians and nurses, particularly nurses, disagreed. Health educators, however, are trained in a more integrative type of role than they are expected to carry out. Their training emphasizes problem solving, which is an aspect of program planning, and skills in group work, which are an asset in coordinating staff activities.

The data suggest that health educators may encounter conflicts and misunderstandings when they attempt to carry out internally integrative activities. However, since job descriptions are written in terms such as "assists," "helps," and "coordinates," there is an implicit emphasis on integrative activities for the health educator. The data suggest that this emphasis is not, and probably will not be, agreed to by other professions.

Eight of the nine overlapping activities self-attributed by physicians and nurses were of the internal, integrative type. Physicians with responsibilities for a medical program would be expected to perceive decision making in program planning, evaluation, and staff coordination as their responsibility. The director of nursing and the nursing supervisor, who must translate policies into direct action, would also perceive these as nursing responsibilities. On interview, nurses and physicians generally agreed that medical decisions belonged to the physician and that nursing decisions belonged to the nurse; however, from the content of the disagreements shown in the questionnaires, the two professions appear to have different perceptions of what constitutes a medical or nursing decision.

Physicians and nurses each felt that their profession would be most likely to carry out the following activities:

- Prepare a staff manual on procedures for a chest clinic.
- Prepare a summary report of venereal disease clinic caseload.
- Set up a record system for evaluating child health conferences.
- Decide on when and to whom to refer cases.
- Determine time to be allotted for appointments in child health conferences.

If these were perceived to be shared activities, significant agreement would not be likely to have been found within each professional group. Each activity may involve both medical and nursing decisions, but the findings suggest that the two professions may not agree on which has priority. Apparently there is need for clarification of the areas of medical and nursing decisions.

Decision making within an agency is carried out at various levels. The data from this study suggest ambiguity in the perceptions of different professions regarding responsibility for decision making. When internal, integrative actions are perceived as involving decisions about the work of other staff members, they become executive actions, and there will be conflict and misunderstanding when these actions are carried out by persons who are not accepted as responsible for making decisions in that particular area. Thus, studies of decision making

in the internal, integrative activities of public health organizations would assist all three professions in delineating their own role and the roles of the other two.

Disagreement and misunderstanding among members of different professions reduce the effective use of skills available to an organization to meet both its internal and external needs. Although there is no theoretical optimum adaptation to the environment nor optimum integration of the members of the organization, it might be assumed that when less energy is needed to maintain integration, more energy would be available for meeting the external goals of the organization.

This study suggests that there may be more disagreement about the internal, integrative activities of local health departments than about the external activities. It is possible, therefore, that a greater amount of organizational energy is being expended in the internal, integrative area than in the external area, to the potential detriment of meeting external needs. For more effective team functioning, results of this study suggest that the various public health professions might consider more specific delineation of the internal, integrative aspects of their professional roles in the public health organization.

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Research Centers for Rehabilitation

A limited number of rehabilitation research and training centers are being established by the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare, at universities with medical schools having comprehensive teaching and research programs in physical medicine and rehabilitation.

The Institute of Physical Medicine and Rehabilitation of New York University has received the first grant under this program, \$500,000, to be given annually for use in research and in training professional rehabilitation workers.